

Appln No 10/810,161
Mckittrick et al.
Office action dated August 16, 2006

This listing of claims will replace all prior versions and listing of claims in the application.

LISTING OF CLAIMS

1. (withdrawn) A heat exchanger for an automotive vehicle having a heat exchanger tank and a baffle system, comprising:

a first end tank divided into a first portion and a second portion by a baffle in the first end tank;

a plurality of a first tubes in fluid communication with the first portion of the first end tank, the plurality of first tubes configured to have a first fluid flow therethrough;

a plurality of second tubes in fluid communication with the second portion of the first end tank;

the end tank further comprising a contact area having a deformation, perforation, slot or other shaped mating hole for a tab;

wherein:

- i) the baffle system comprises at least one one-piece double baffle, the one-piece double baffle including at least two baffle profiles and at least one tab; and
- ii) the one-piece double baffle is disposed within the end tank and is folded so that the one-piece double baffle has baffle profiles that are roughly parallel to each other.

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2. (withdrawn) A heat exchanger as in claim 1 wherein the one-piece double baffle comprises a tab at one section of its folded area and the end tank has a perforation, slot or shaped mating hole for insertion of the tab of the one-piece double baffle.
3. (withdrawn) A heat exchanger as in claim 2 wherein the tab extends through the wall of end tank, thereby securing its position and forming a seal.
4. (withdrawn) A heat exchanger as in claim 3, wherein the seal formed is essentially leak-tight.
5. (withdrawn) A heat exchanger as in claim 1, wherein the at least one one-piece double baffle comprises at least two baffle profiles, each of the at least two baffle profiles having a common central portion and forming a chamber portion.
6. (withdrawn) A heat exchanger as in claim 1 wherein the at least one tab has a relief means throughout its thickness.
7. (withdrawn) A heat exchanger as in claim 2 wherein the end tank has a relief means at a point contiguous with the tab.
8. (withdrawn) A heat exchanger as in claim 1 wherein the one-piece double baffle is formed from one continuous piece of material.
9. (withdrawn) A heat exchanger tank according to claim 1 wherein the one-piece double baffle for separating fluid sections has perimeter walls that are approximately perpendicular to the tank wall surface.

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10. (withdrawn) A heat exchanger as in claim 9 wherein the perimeter walls of the baffle profiles have a common center area.

11. (withdrawn) A heat exchanger for an automotive vehicle having a heat exchanger tank and a baffle system, comprising:

a first end tank divided into a first portion and a second portion by a baffle the first end tank including;

a plurality of a first tubes in fluid communication with the first portion of the first end tank, the plurality of first tubes configured to have a first fluid flow therethrough;

a plurality of second tubes in fluid communication with the second portion of the first end tank, the plurality of second tubes configured to have a second fluid different from the first fluid, flow therethrough; and

the end tank further comprising at least one deformation, perforation, slot or other shaped mating hole for a tab;

wherein:

- i) the baffle system comprises at least one one-piece double baffle, each one-piece double baffle including at least two baffle profiles and at least one tab, and,
- ii) each one-piece double baffle is disposed within the end tank and is folded so that the one-piece double baffle has baffle profiles that are roughly parallel to each other.

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12. (withdrawn) A heat exchanger as in claim 11 wherein the one-piece double baffle comprises a tab at one section of its folded area and the end tank has a perforation, slot or shaped mating hole for insertion of the tab of the one-piece double baffle.

13. (withdrawn) A heat exchanger as in claim 12 wherein the tab extends through the wall of end tank, thereby securing its position and forming a seal.

14. (withdrawn) A heat exchanger as in claim 13, wherein the seal formed is essentially leak-tight.

15. (withdrawn) A heat exchanger as in claim 11, wherein the at least one one-piece double baffle comprises at least two baffle profiles, each of the at least two baffle profiles having a common central portion or area and forming a chamber portion.

16. (withdrawn) A heat exchanger as in claim 11 wherein the at least one tab has relief means throughout its thickness.

17. (withdrawn) A heat exchanger as in claim 12 wherein the end tank has a relief means throughout its thickness at a point contiguous with the tab.

18. (withdrawn) A heat exchanger as in claim 11 wherein the one-piece double baffle is formed from one continuous piece of material.

19. (withdrawn) A heat exchanger tank according to claim 11 wherein the one-piece double baffle for separating fluid sections has

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perimeter walls that are approximately perpendicular to the tank wall surface.

20. (withdrawn) A heat exchanger as in claim 19 wherein the perimeter walls of the baffle profiles have a common center portion or area.

21. (currently amended) A method for making a heat exchanger tank assembly comprising:

manufacturing a one-piece double baffle comprising a tab at an area of insertion, fold or bend on the double baffle ~~and with~~ having peripheral walls of the double baffle formed so that they form a central chamber;

providing a heat exchanger end tank which comprises a contact area comprising a deformation, perforation, slot or other shaped mating hole for insertion of the tab of the double baffle;

aligning the tab of the baffle and the end tank contact area so that the tab may be inserted into the contact area chamber;

inserting the one-piece double baffle in the end tank at the contact of the end tank; and

applying a sealing technique such that the double baffle remains in place after the assembly process and the completed heat exchanger assembly may be used in automotive applications, so that when assembled the overall chamber width between the

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wall of the double baffle is larger at area of the end tank than at the interior.

22. (previously presented) A method as in claim 21, further comprising extending the tab through the wall of the end tank, thereby securing its position and forming a seal.

23. (previously presented) A method, as in claim 22, further comprising forming the seal so that it is essentially leak-tight.

24. (currently amended) A method, as in claim 21, wherein the one-piece double baffle comprises at least two baffle profiles, each of the at least two baffle profiles having a common central portion and forming a chamber portion, the baffle portions being basically perpendicular to the tank wall surface.

25-28 (cancelled)

29. (new) A method for making a heat exchanger tank assembly comprising:

manufacturing a one-piece double baffle comprising a tab at an area of insertion, fold or bend on the double baffle and with having peripheral walls of the double baffle formed so that they form a central chamber;

providing a heat exchanger end tank which comprises a contact area comprising a deformation, perforation, slot or other shaped mating hole for insertion of the tab of the double baffle;

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providing a relief mean orientated such that after assembly the relief means at a point contiguous with or throughout the thickness of the tab;

aligning the tab of the baffle and the end tank contact area so that the tab may be inserted into the contact area chamber;

inserting the one-piece double baffle in the end tank at the contact of the end tank; and

applying a sealing technique such that the double baffle remains in place after the assembly process and the completed heat exchanger assembly may be used in automotive applications.

30. (new) A method, as in claim 29, further comprising forming a relief means throughout the thickness of the tab.

31. (new) A method, as in claim 29, further comprising forming a relief means in the end tank at a point contiguous with the tab.

32. (new) A method, as in claim 30, further comprising forming a relief means in the end tank at a point contiguous with the tab.

33. (new) A method, as in claim 29, wherein the one-piece double baffle is formed from one continuous piece of material.